a silicon chip having I/O pads;

A4 cont

an under-ball metallurgy (UBM) layer on the surface of said I/O pads;

a substrate having a thickness between about 150 to 300 μm adhered to an adhesive having a thickness between about 10 to 100 μm to form an adsubstrate, the adsubstrate having openings corresponding to the locations of said I/O pads; and

ball mountings formed over said adsubstrate and reaching said UBM layer over said I/O pads on said chip.

A5

3. The CSP of claim 1, wherein said UBM layer comprises nickel or copper.

✓

Please cancel claim 6.

A6

11. A method of forming a chip scale package (CSP) comprising the steps of:

providing one or more chips having I/O pads with UBM layer on the surface of said I/O pads;

providing a substrate having a thickness between about 150 to 300 μm;

applying an adhesive layer with a thickness between about 10 to 100 μm over said substrate, thus forming an adsubstrate composite;

A6 cont.

forming openings in said adsubstrate composite to match the spacing of corresponding said I/O pads of said chip;

attaching said chip(s) on said adsubstrate composite wherein said I/O pads of said chip(s) are placed on the corresponding openings on said adsubstrate composite to form a package;

forming a molding material around said package;

performing ball mounting over said openings on said adsubstrate of said package; and

sawing said substrate to form said CSP.

Claims 16 and 18, please cancel.

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26. A method of forming a chip scale package (CSP) comprising the steps of:

A7

providing a wafer having a plurality of chip sites with I/O pads;

forming an under-ball metal (UBM) layer over said I/O pads;

forming an adhesive layer over said UBM layer on said wafer to form an adwafer, the adhesive layer having a thickness between about 10 to 100 μm;

forming openings in said adhesive layer on said adwafer to reach said I/O pads underlying said UBM layer;

die sawing said adwafer to form said chip scale package (CSP);

providing a substrate having openings corresponding to said I/O pads;

A7 CONT.

attaching said CSP with said adhesive to said substrate; and

forming ball mountings on said openings on said substrate to attach to said I/O pads on said CSP.

Claim 33 has been cancelled.

REMARKS

Claims 1-5, 7-15, 17, 19-32, and 34-41 remain in this application. Claims 1, 3, 11 and 26 have been amended, and claims 6, 16, 18 and 33 cancelled.

Examiner Patricia Costanzo is thanked for examining the present invention thoroughly.

The examiner is also thanked for having pointed out some ambiguities in the last four lines on page of the present application. Those lines have been corrected to state, in